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THE HIGH-SCHOOL PROGRAM OF STUDIES AND THE STUDENT'S CURRICULUM.

II.

PART II.

IN the first part of our discussion, after quoting definitions of "program of studies," "curriculum," and "course of study," and taking a view of the whole field of secondary studies, we proceeded to mention the general considerations, pedagogical, physiological, sociological, and æsthetic, that influence the expert in his organization of a high-school program of studies. We now proceed to particular considerations, using California conditions by way of illustration.

PARTICULAR CONSIDERATIONS.

1. *State law.*—In making his selection for the school program, the organizer thereof in California needs to bear in mind the state law, which declares :

Said course of study shall embrace a period of not less than three years, and it shall be such as will prepare graduates therein for admission into the State University. The high-school board may prescribe an additional course or additional courses of study, subject to the approval as hereinbefore provided [*i. e.*, the approval of the County Board of Education].¹

2. *University requirements*—Since the state law requires that the students graduated from high schools in California shall be eligible for admission to some department of the State Univer-

¹ *Political Code*, Art. XII, sec. 1670.

sity, the organizer must needs be to some extent guided in his choice of subjects for his school program by the university requirements. These differ for the different colleges, and he would be keeping both the letter and the spirit of the law if he were to prepare his students in the minimum requirements. But he will undoubtedly desire to do more than this. He will endeavor, as far as possible, to include such subjects in the program as will make it possible for any student graduated from his school to enter the particular college he may prefer.

The accompanying chart shows at once what the requirements for the different colleges are.

This chart of university requirements suggests a few remarks. One cannot fail to observe the six units of constants in the requirements for *all* the colleges, and to note that they are in English language and literature, mathematics (algebra and geometry), American history and civil government, and physics. That is to say, we find the basal idea of the scheme of admission requirements to the University of California is that *every* candidate for college shall have a foundation in each of the four groups which may be considered fundamental, namely: language (English), mathematics, history, and a science, either observational or experimental. And for the remaining requirements in the different colleges the organizer of the high-school program as well as the student will do well to regard them as valuable guides, offered to the student by experts in those departments of professional work which the student hopes himself some day to enter.

Stanford University in its requirements permits somewhat more choice on the part of the high-school student than does the University of California, and makes it possible for a student to commence work in *any* of its departments even without his having definitely planned for that particular department at the beginning of his high-school course.

There is some advantage in this. As Professor Brown remarks, "secondary education shall help the student to find himself;" and if this is true, it is fair to assume that all have not "found themselves" when they enter upon their course in the

UNIVERSITY OF CALIFORNIA —ENTRANCE REQUIREMENTS FOR THE DIFFERENT COLLEGES.

(1) Age, sixteen years; (2) satisfactory references as to moral character; (3) the completion of one of the following groups of studies.

LETTERS: 1a SOCIAL SCIENCES, COMMERCE, NATURAL SCIENCES	1b SOCIAL SCIENCES	1c NATURAL SCIENCES	1d COMMERCE	III AGRICULTURE	IVa MECHANICS, MINING, CHEMISTRY, CIVIL ENGINEERING
Units	Units	Units	Units	Units	Units
English 2	.. 2	..... 2	..... 2	..... 2	..... 2
Mathematics 2	.. 2	..... 2	..... 2	..... 2	..... 2
Physics 1	.. 1	..... 1	..... 1	..... 1	..... 1
American History and Civil Government. 1	.. 1	..... 1	..... 1	..... 1	..... 1
Latin { 2 2 }	.. 2 .. 2	..... 2	..... 2	Elective	Elective
Greek 2		French or German { 3 4 }	French (elem) or German (elem.) 2	Latin, or Greek, or English (adv.) 2 or French or German (elem.) 2	Latin, or Greek, or English (adv.) 2 French (elem.), or German (elem.) 2
			Mathematics (adv.) 1	Extra half unit in Algebra, or ½ Mathematics (adv.)	Extra half-unit in Algebra . ½ Solid Geometry ½ Plane Trigonometry ½
			Botany, or Zoology, or Chemistry { 1 1 }	Botany, or Zoology, or Physical Geography { 1 1 }	Natural Sciences
				Chemistry 1	Chemistry 1
					Drawing — Freehand 1 Geometrical 1
Elective 3	Elec- tive 5	Elective .. { 4 3 }	Elective 3		Elective
Total 15	.. 15	..... 15	..... 15	..... 10½	..... 14½
					Total

secondary school. However, for any college in the University of California, save that of Letters, an intelligent student graduated from an accredited high school, can readily prepare himself with a little extra work in certain studies.

The following, which is p. 34 of the *Register* issued April, 1903, makes clear what Stanford's requirements are:

ADMISSION TO UNDERGRADUATE STANDING.

Candidates must be at least *sixteen* years of age. They must present certificates of good moral character, and, if from other colleges or universities, must bring letters of honorable dismissal.

Preparation for full undergraduate standing implies the completion of a four-year high-school course, or its equivalent.

Fifteen credits are required for admission in full undergraduate standing, each credit representing one full year's work in the high school, with daily recitation, two laboratory periods being regarded as the equivalent of one recitation period. These may be made up of English Composition (two credits) and such other subjects (aggregating thirteen credits) as may be selected by the candidate from the list given below, except that Subject 23 may not be offered with either Subject 10 or Subject 11. *Twelve* credits will be accepted for admission in partial standing.

Entrance credits may be obtained (*a*) on examination at the University, or (*b*) wholly or in part without examination. The subjects which may be offered, with the credit value of each, are enumerated below:

ENTRANCE SUBJECTS.

- | | |
|-------------------------------------|-------------------------------|
| 1. English Composition (2) | 15. English History (1) |
| 2. Elementary Algebra (1 ½) | 16. American History (1) |
| 3. Plane Geometry (1) | 17. English Literature (1, 2) |
| 4. Solid Geometry (½) | 18. Spanish (2) |
| 5. Trigonometry (½) | 19. French (2, 3) |
| 6. Advanced Algebra (½, 1, 1 ½) | 20. German (2, 3, 4) |
| 7. Physics (1) | 21. Latin (2, 3, 4) |
| 8. Chemistry (1) | 22. Greek (2, 3) |
| 9. Physiology (1) | 23. Biology (1) |
| 10. Botany (1) | 24. Physiography (1) |
| 11. Zoölogy (1) | 25. Mechanical Drawing (½) |
| 12. Freehand Drawing (1) | 26. Woodworking (½) |
| 13. Ancient History (1) | 27. Forge Work (½) |
| 14. Mediæval and Modern History (1) | 28. Foundry Work (½) |
| | 29. Machine Shop Work (1) |

3. *Majority preferences, or local environment.*—In every way possible the school should be brought into close touch with its

patrons. The organizer of the school program, therefore, in making selection among similar subjects, so far as educational value is considered, should be guided by the majority preferences of the students. Thus, if in a certain town a majority of the students prefer to study French rather than German, they should, if possible, be accommodated, and *vice versa*; and if, owing to the local environment, certain vocational studies such as book-keeping and stenography should be in demand, the organizer should, so far as possible, give these subjects a place in the program of studies.

4. *The number and special fitnesses of the teachers employed.*—In these days of extensive and intensive study in every branch of knowledge, few high-school teachers can be expected to have more than two specialties. Hence, where there are but three teachers, the organizer of the program will probably find himself somewhat restricted for want of a specialist in every branch he might otherwise select.

5. *The number of daily recitations advisable.*—If each teacher conducts six recitations daily, and he should not be expected to conduct more, especially in the hot districts, and if there be but three teachers for the school, the total number of recitations in different subjects and divisions of subjects cannot exceed eighteen. The principal should have at least one school period for supervising his assistants and for office work, so that the number should not exceed seventeen. But by alternating subjects in different years some expansion can be gained, although this is not entirely satisfactory. Thus, in Latin, instead of having separate classes for third- and fourth-year students, classes in Cicero and Virgil may be organized alternate years, and the third- and fourth-year students study these authors together. The number of students in these advanced classes is small in small schools, so that the different standards of excellence to be required of the third- and fourth-year students need not be overlooked.

Resulting program.—The organizer of a high-school program of studies has then many considerations to bear in mind. He would probably find it useful also to study the list of subjects

taught in some high school where perfect freedom of election, save in English, was allowed, and to take note of the numbers of students electing the several studies. Such records might at least be allowed some weight in apportioning school time among the subjects decided upon.¹

Program of a three-teacher school.—Thus guided, the organizer of a three-teacher school in the state of California would probably find his program of studies comprising the following:²

M ¹	H ¹	L ¹	E ¹	S ¹	G ¹ or Fr ¹ or Sp ¹
M ²	[H ²]	L ²	E ²	S ²	[G ² or Fr ² or Sp ²]
M ³	[H ³]	[L ³]	[E ³]	S ³	[G ³ or Fr ³ or Sp ³]
	H ⁴	[L ⁴]	[E ⁴]		

The brackets denote that those classes would be combined and the different divisions of the subjects taught in alternate years, as explained above. As good reasons might be given for the teaching of English history before mediæval and modern as for the opposite order named in the report of the Committee of Seven to the Committee on College Entrance Requirements. That there is no particular reason why the study of Cicero should precede that of Virgil, or *vice versa*, is evident from the follow-

¹ See SCHOOL REVIEW, Vol. IX (June, 1901), pp. 405, 406, for the record of the Medford High School, Massachusetts, where for the school year 1900-1901 complete freedom of election was allowed in all subjects save English.

² The following abbreviations are here employed :

M¹ = first-year mathematics — algebra.

M² = second-year mathematics — geometry.

M³ = advanced mathematics — trigonometry, solid geometry, and higher algebra.

H¹ = first-year history — ancient history to 800 A. D.

H² = second-year history — mediæval and modern history.

H³ = third-year history — English history.

H⁴ = fourth-year history—American history and civil government.

L¹ = first-year Latin.

L² = second-year Latin.

L³ = third-year Latin — Cicero or Virgil.

L⁴ = fourth-year Latin—Virgil or Cicero.

E¹, E², E³, E⁴ = first, second, third, and fourth years of English respectively.

S¹ = first-year science — physiography.

S² = second-year science — physics.

S³ = third-year science — chemistry.

G¹, G², G³, = first, second, and third years of German respectively.

Fr¹, Fr², Fr³ = first, second, and third years of French respectively.

Sp¹, Sp², Sp³ = first, second, and third years of Spanish respectively.

ing statement taken from the report of the Conference on Latin to the Committee of Ten: "The conference makes no recommendations upon the questions whether Cicero should precede Virgil, or Virgil Cicero; but suggests that if Cicero precede, four orations be read, then six books of Virgil, followed by the remaining two orations." The topics in E³ and E⁴, being for the most part specimens of literature, can be more or less equalized as regards difficulty and the two classes combined; and the same could be done in the second and third years of the modern-language study. The chief objection to this combination of classes lies in the fact that there would be in every such class two grades of pupils—a disadvantage that would be most felt in the second and third year's modern-language work; but to this it may be said that, the classes being small, the individual difference could be recognized and work correspondingly adjusted. At any rate, better work will be done and better discipline effected if the hours of school be not too long continued and the teachers be not overworked, than if, as in so many places, both these sins be committed.

Daily schedule of a three-teacher school to comprise seventeen recitations.—If one distinct class were organized for each yearly division of all subjects usually included among secondary studies, the total number of such classes would be at the very lowest calculation forty-five. But by the process of selection, working along the lines indicated above to accommodate the greatest number of needs of the greatest number of pupils, this number has been reduced for the three-teacher school to twenty-one in all, or through the combination of certain advanced classes, where the number enrolled is comparatively small, to seventeen.

Expansion of program with growth of school.—High schools in California have been growing rapidly of recent years. The Rowell Act of March, 1903, granting state aid to high schools, will probably increase this growth. Let us hope it will not cause the repetition of the mistake made in the elementary school system of establishing little schools for every few families, but will rather build up strong high schools well manned and well

managed. As the enrolment of students increases, the number of teachers can be increased, and the program thereby enriched and greater election of studies made possible.

Thus, as soon as a *fourth teacher* can be added, the organizer of the school program will be able to double the recitation period in S^2 (physics) and S^3 (chemistry). He may also make distinct classes in the second- and third-year modern-language work, and in the third- and fourth-year English work. If the locality desires it, he may devote the remaining two periods to vocational studies, probably bookkeeping and stenography. If this is not necessary, he might use these two periods for work that would to some extent take account of the sociological and æsthetic considerations discussed in the earlier part of this thesis.

When a *fifth teacher* is added, distinct classes can be formed for third- and fourth-term Latin, and for second- and third-year history. Drawing, both freehand and mechanical, should now be introduced. It will probably be found necessary at this stage of the school's growth to organize two classes in M^2 and two classes in E^1 .

When a *sixth teacher* is added, an additional foreign language, taking three recitation periods, could be introduced; also a double period for an additional science—biology, if the necessary equipment can be obtained. The remaining period will probably be needed for an additional class in American history and civil government.

From this point on the needs of the school will be a manifest guide as to the direction the expansion of the program should take. Local environment will be increasingly influential. The American public school is a democratic institution, largely governed and controlled by a local board of education. Provided the pedagogical requirements are not interfered with, it is well for the community through its board of education to take an active interest in its high school. In doing so, the community will naturally be interested in the choice of subjects taught in its school, and will occasionally make demands with regard to the program of studies. And this is all as it should be.

The three-teacher school time schedule or daily program.—Having settled upon the subjects to be taught in the seventeen daily

recitations of our three-teacher school, we have now to frame such a time schedule as will enable the students of each year to get all the studies they desire; in short, we must avoid as many "conflicts" as possible.

The twenty-one divisions of subjects on p. 202, comprising the complete program of studies in the three-teacher school, may be readily classified according to the years in which they will usually be studied. At least the sequence of studies may be indicated. Thus:

E¹ M¹ L¹ H¹ S¹ - - - - - first-year studies
 E² M² L² H² (G¹ or Fr¹ or Sp¹) - - - - - second-year studies
 E³ L³ H³ S² (G² or Fr² or Sp²) - - - - - third-year studies
 E⁴ M³ L⁴ H⁴ S³ (G³ or Fr³ or Sp³) - - - - - fourth-year studies

Now, while no student will be likely to take all the subjects assigned for one year, yet, in order to permit of the formation of the greatest possible number of curriculums—that is, in order to allow of the widest possible "election" on the part of the student—the time schedule must be so arranged that no two subjects represented on the same horizontal line of the above diagram shall be taught during the same recitation period.

The specialties of each teacher in the school must also be noted and care taken that no two subjects taught by the same teacher shall fall in the same period.

The following plan may prove suggestive. Supposing the following combination of specialties to occur, namely mathematics and English, Latin and history, science and German,¹ a schedule may be planned thus:

PERIOD	TEACHER A		TEACHER B		TEACHER C	
	Mathematics	English	Latin	History	Science	German
I.....	M ³	.....	.....	H ¹	S ²	.....
II.....	.....	E ²	.....	H ⁴	S ¹	.....
III.....	.....	E ³ E ⁴	L ¹	.....	.....	G ¹
IV.....	M ²	.....	.....	H ² H ³	S ³	.....
V.....	M ¹	.....	L ³ L ⁴	.....	Free period for principal's office work	
VI.....	.....	E ¹	L ²	.....	
						G ² G ³

Proportional time allotments: Mathematics, $\frac{3}{7}$; English, $\frac{3}{7}$; Latin, $\frac{3}{7}$; science, $\frac{3}{7}$; History, $\frac{3}{7}$; modern language, $\frac{2}{7}$.

¹ "German" here represents the foreign modern language, whichever is taught.

The following is a schedule for a different combination of specialties, namely, mathematics and science, English and Latin, history and German :¹

PERIOD	TEACHER A		TEACHER B		TEACHER C	
	Mathematics	Science	English	Latin	History	German
I.....	M ¹	.....	.....	L ³ L ⁴	.....	G ¹
II.....	.....	S ¹	E ²	.....	.....	G ² G ³
III.....	M ²	.....	E ¹	.....	H ⁴	.....
IV.....	M ³	.....	.....	L ¹	H ² H ³	.....
V.....	.....	S ³	.....	L ²	H ¹	.....
VI.....	.....	S ²	E ³ E ⁴	.....	Free period	

Proportional time allotments: Same as above.

Students' curriculums in accordance with the time schedule.—

Taking the first schedule of the two just given, let us proceed to frame a student's "curriculum" in accordance with it. The following table shows the subjects for the respective four years of the student's high-school life, arranged in the order of the time schedule :

K.

Period	Year 1—Subject	Year 2—Subject	Year 3—Subject	Year 4—Subject
I.....	H ¹	S ²	Study period †	M ³ †
II.....	S ¹	E ²	Study period †	H ⁴ †
III.....	L ¹	G ¹	E ³ or E ⁴	E ⁴ or E ³
IV.....	Study period *	M ²	H ² or H ³	S ³
V.....	M ¹	Study period *	L ³ or L ⁴	L ⁴ or L ³
VI.....	E ¹	L ²	G ² or G ³	G ³ or G ²

† The schedule is purposely arranged to make it possible for students to take M³ or, perhaps and, H⁴ in their third year if it is thought desirable. It also makes it possible for a student to take a second time H¹, S¹, S², or E², if he should have failed in one of them the first time. Or these two periods may be used for the study of any of these four subjects for the first time, if they have not been already taken. In short, these two periods give considerable flexibility to the student's curriculum.

* These study periods are purposely placed here; for, according to my time-table, one will come just before, the other just after, the noon intermission. For the significance of this see (4) under "Remarks" on the time-table, p. 208.

If the subjects here be properly treated, the student should be able to gain profitable training in a high school with such a

¹ "German" here represents the foreign modern language, whichever is taught.

schedule. He is here brought into touch with life at several points. Avenues are opened into the realms of nature and of man, and opportunities are afforded adolescents to "find themselves." For the few who go on to college, and for the many who do not, this program, restricted as it is, will undoubtedly meet many needs of many students.

The student preparing for entrance to the University of California College of Letters will find here all the subjects "required" save Greek.¹ Students preparing for any of the other colleges—be they those of Social Sciences, Natural Sciences and Commerce, or of Agriculture, Mechanics, Mining, Chemistry, and Civil Engineering—will find here a sufficiently wide range of subjects to enable them to meet the requirements, save that for the last four colleges mentioned, drawing, freehand and mechanical, will be required after 1904-5.

Students who complete a full four-year course will, if recommended, have no difficulty in entering Stanford University, which makes no special restrictions as to subjects, save that two of the fifteen entrance credits must be for English composition. It stands to reason, however, that students should equip themselves for their college work by including among their studies in the high school those which will best serve them for the special line of work they intend to pursue.

Time-table for a three-teacher high school.—To complete the organization with reference to the program of studies, a time-table is here submitted with a few remarks. Circumstances, however, so differ in different schools that it is hardly likely that many would use the same time-table. This, however, may prove suggestive and for this reason alone it is inserted here :

MORNING.		AFTERNOON.	
9-9:15 -	Study period for all	1:10 -	Reassemble
9:15-10 -	Period I	1:15-2 -	Period V
10-10:45 -	Period II	2-2:45 -	Period VI
10:45-11 -	Recess	2:50 -	Dismiss
11-11:45 -	Period III		
11:45-12:30 -	Period IV		

¹ In some schools a special class is held after ordinary school hours for students desiring Greek for entrance to the College of Letters, and one of the teachers takes charge of it, chiefly as a labor of love and cultural service.

REMARKS.

1. This time-table is arranged with a view to California conditions. In many counties, for many months of the year, the high temperature renders mental work between 3 and 4 o'clock in the afternoon almost impossible. As frequently remarked, teachers and pupils "just wilt" at that time. Hence four recitation periods are arranged for in the morning, and only two in the afternoon.

2. The morning is commenced with a fifteen-minute study period. This serves many purposes.

a) It begets a studious attitude on the part of the student. Almost all students will study intensely with the day's lessons ahead of them.

b) It gives teachers time to attend to the necessary records of attendance, to take account of tardy students without interrupting a whole class, to put such outlines and directions on the black-board as the day may require, to make such general announcements as may be necessary, and to talk to the students occasionally on matters of conduct, general information, and patriotism. Experienced teachers know these things must be attended to. To provide no time for them is to "crowd" the teacher and keep her in a state of continual annoyance by reason of these details of her work.

c) It gives the busy principal an opportunity to attend to matters that often do not reveal themselves until school is called.

3. A recess of fifteen minutes is planned for in the middle of the morning. This is absolutely necessary for hygienic reasons. It is monstrous to attempt to drive young people, or any people for that matter, through a whole morning's mental labor without any relaxation, physical or mental. The sound body is imperatively necessary, and American schools of the twentieth century should take as much pains to secure it as did the sturdy Greeks of three centuries before Christ.

4. The noon period for many students, who desire to go home to lunch, may be lengthened by excusing them during the fourth or fifth period of the day, if they have no recitations at one of those times. Thus, by reference to Schedule K on p. 206, it may

be seen that all first-year students might be excused at the end of the third period, that is, at a quarter to twelve, while second-year students having no recitation during the fifth period need not return until 2 P. M.; of the third- and fourth-year students all but those studying Latin might be excused the fifth period, that is to say, be allowed a noon intermission extending from 12:30 to 2 o'clock; and of the Latin students there would be several who could be excused the fourth period, unless they were taking H², H³, or S³. In this way nearly all the students could be accommodated with a long intermission at noon, if it were desired, while the work of the whole school would be over by 3 P. M. There need be little trouble in managing this matter, if it is explicitly understood that the extended intermission is for those only whose parents desire them to go home for lunch (the desire to be expressed in a written request at the beginning of the term), and that any student who abuses the privilege, or whose conduct in school is not satisfactory, renders himself liable to the immediate forfeiture of this privilege of extended intermission. This arrangement prevails in the Portland (Oregon) High School.

5. Evening study made possible. Nothing is more valuable to a young man than the formation of proper habits in the spending of his evenings. The law in California forbids the assignment of home work while a child is passing through the grammar grades; and this, while doubtless on the whole beneficial to the health of the child, leads frequently to excessive desultory reading and aimless, drifting habits of evenings. When the youth goes to college, his success will largely depend upon his ability to apply himself steadily to the preparation of his assigned work, and this must usually be done in the evening. If, instead of going to college, he enters commercial life, his promotion depends largely on the way he makes use of his evenings. When married, much of his domestic happiness depends on his ability to enjoy quiet evenings at home. If, then, during the adolescent period the youth becomes accustomed to quiet study at home in the evening, he will have formed a habit that will, throughout life, bring him much positive good, and will also save him from innumerable temptations. But how is this pos-

sible for a growing, energetic lad, if he be kept confined in school from 9 to 12 in the morning and from 1 to 4 in the afternoon? By closing school at 3 o'clock, however, opportunity is afforded the boys for a really good time before supper—a time when they can work off their superabundant energy and secure proper physical development and wholesome mental relaxation. It will then be fairly easy for them to settle down to evening study; and this habit, once formed, will be a source of health, strength, and pure enjoyment all through life.

THE STUDENT'S CURRICULUM.

Organization on anything approaching a large scale must necessarily be based on generalization. The general, the "captain of industry," in short the organizer in any line of work, must merge the individual in the mass, must subordinate special and particular needs to general requirements. Only so will he avoid partiality; only so will he secure proportion; only so will he meet the greatest number of needs of the greatest number of individuals. But while having all the difficulties of the ordinary organizer, the organizer of the high school has others, arising out of the nature of those for whom he is organizing. He can make no more fatal mistake than to overlook the fact that the adolescent, the student as we have him in our high schools, is so constituted that he will do good work, enduring work, work worth the doing, only when he is working in accordance with what he feels to be to his own interest and advancement. If he once comes to think that he is a mere cog in a school machine, that he is being ground through a certain scholastic mill, and that the preservation and polishing of the machinery are more thought of than the valuable physical and mental "stuff," however costly, that is being wrought upon, he is likely to cause trouble. Either he will depart and leave the machinery to be employed upon poorer stuff, stuff more ductile, but of little inherent strength, or he will assert himself, demand some rights of initiative—and then there will be friction.

And this brings us to the apparent dilemma mentioned in the early pages of this discussion. Recognizing, on the one side, the

necessity of organization and the superior ability of the expert to prescribe a curriculum best suited to the individual student's needs, we are confronted, on the other side, with the necessity of obtaining, not merely the student's passive assent to the course prescribed, but his active and earnest adoption of that course or of one very similar to it. Let us consider this problem, and see whether these conflicting elements cannot be harmonized.

In the first part of this discussion we have seen how the organizer, keeping in mind the contending forces acting in the selection of subjects for the program of studies, strove to arrange such a program as would meet the greatest possible number of needs of the greatest number of students taking work in his school. The limitations were many, but he did his best; of the inadequacy of the resulting program to meet *all* the needs of *all* the students, no one knows better than he. All that can be reasonably expected in any case is that the result be the best possible under the circumstances. The program, then, has been as broad as is consistent with thorough efficiency and enduring quality. It is true that we might have lengthened the day, added more recitation periods, and extended the program. But to do so we should have been compelled to overwork the teachers, which would have resulted in taking the joy from their work, and, with the joy, nine-tenths of the effectiveness.

Referring now to the definition of terms at the beginning of our discussion, we note in the quotation from the report of the Committee on College Entrance Requirements the statement that the "program may be made to yield several curriculums, or possibly almost as many curriculums as there are students, each curriculum perhaps being better than the others from an individual point of view" This indicates at once that the formation of a "program of studies" does not carry with it a hard and fast "curriculum" for every student. It is true that in a small school the curriculum cannot vary very greatly, if the student is to take a full four-year course, but still it can vary to some extent, and this extent grows rapidly greater as the size of the school increases. And it is in this variation that the student's individ-

uality can be taken account of.¹ This brings us to the question of the student's election of studies.

THE STUDENT'S ELECTION OF STUDIES.

Shall the expert educator, after studying the individuality of the student, diagnose his case, and not only prescribe for him but compel him to follow a certain curriculum; or shall the student, supposedly knowing his own aptitudes, be allowed under guidance to form his own curriculum? On the one hand, we must admit that the experienced educator is likely to choose better than the inexperienced, unaided student; on the other hand, the student, by virtue of the characteristics of his adolescent condition, is likely to accomplish more when working according to a plan he believes to be his own than when slavishly following a prescribed course. The movement in education throughout the United States is undoubtedly in favor of election by the student, and it has become the problem of the educator to see whether conditions cannot be so arranged that the student will freely choose the course which the expert educator would choose for him.

In the first place, to clear matters somewhat, a word may be said to those who profess to believe that freedom of election will lead all students to "hunt for snaps;" that is to say, to look for such courses of study as will enable them to secure a diploma with but little effort. It seems to me there are two obvious answers to this objection. First, there should be no "snaps" for students to find, and if the system of election will reveal to the principal of the school, and the others in authority, the work in the school that is lacking in thoroughness and educational value, it will be a service to the school and lead to greater general efficiency. It might also draw attention to certain classes where the teachers were making the work unnecessarily laborious. But in a school properly supervised by a capable principal there will be no "snap courses" for lazy students

¹ We see here the reason for discouraging the building of many small schools. I do not mean to say that there are not some good reasons for small schools near the homes of the students. Everything in life must be judged by the weighing of relative values; every good is a mean between two or more extremes.

to elect. Secondly, such students who are inclined to seek for "snaps" need to be reasoned with as to the advisability of study at all, and not as to the preference of one study over another. There may be many reasons for their dislike of study. Perhaps they want to be "doing" things, and the school demands that they sit still hour after hour and read about things. Possibly, by reason of some physiological defect of eye or of ear, the ordinary school work becomes speedily irksome. Most likely their interest has been killed by some weak teacher, and like most young people they have generalized on insufficient data, and come to the conclusion that all teachers are bores. But, whatever the reason, the case of these students should not be quoted as an argument against the elective system; for, indeed, in a properly supervised school they are dealt with no less easily under an elective system than under a required system.

Let us now turn to the great majority of students—those who come to the high school, often withstanding the temptation to earn some much-desired pocket money, and who look to the school to fit them to do some useful work in life, to hold an honorable position in society, and to be a credit to themselves and their friends. How shall they be led to choose for the best? To answer this, we shall do well to find out what it is that gives them a preference—doubtless, in some cases, a mistaken preference—for some studies rather than others. Where, for example, does a certain boy get his notion that he wants to study Latin?¹ If we can find that out, we shall be getting at the root of the matter, and can then more easily see what we must do to get the results we desire.

The question, surely, is not very difficult to answer. The boy reflects his environment, that is all. He has been subject all his life to the suggestion of certain people. In school matters, these are usually his parents, his older brothers and sisters who have been to the high school before him, his former teachers and his other friends. Perhaps, too, in his reading in the library of

¹ The elective system has been fairly generally adopted throughout the United States, at least so far as certain courses are concerned (*e. g.*, Latin, scientific, commercial English), and yet the proportion of high-school students taking Latin has doubled during the last ten years.

his town he has lit upon some book that has had a marvelous fascination for him, and has awakened in him an ardent desire to study some particular science. The reading, it may be, about the construction of the great Assouan dam across the Nile has kindled in him an ambition to be a great engineer, and his interest in this great end gives him abundant interest in the means—geometry and trigonometry. Perhaps his religious emotions have been stirred, and he desires to study Greek that he may read the New Testament in the original. Only in rare cases shall we find any attempts at radical departure from a normal course. As Professor DeGarmo says in his recent discussion of *Interest and Elective Studies*:

Nor need we fear that tradition will not have its due weight. It takes a courageous mind to forego classics for modern languages if such a course is thought to be an evidence of lack of ability or of diligence. There is more danger that a student will elect the old studies to his injury than that he will suffer harm from choosing the new—witness the fact that the proportion of high-school students taking Latin has doubled during the last ten years.

If, then, we wish the student to choose wisely, we must study the chief factors in his environment and exert our influence accordingly. To begin with, the teachers in the higher grades of the elementary schools should be thoroughly instructed in the relations and value of the different high-school studies. The students now in our high schools should be so instructed in the full program of studies as to be able to explain it to their younger brothers and sisters, and to anyone else asking information of them. At parents' meetings, now becoming more and more common, the matter should be brought up from time to time and carefully discussed. Further, the principal and teachers of the high school should be in close touch with the teachers and pupils of the grammar grades, and the high-school program should be explained to the prospective graduates of the grammar schools. If explained by one who thoroughly understands it, this program is not more difficult for a pupil to comprehend than many topics we teach him in history, civil government, physical geography, and mathematics. Finally, each term before the opening of school it would be helpful, it seems to me, if the principal of

the high school could keep office hours to see students individually who might desire to consult him as to their high-school course.

In this interview the principal would probably wish to draw attention to the considerations, general and particular, taken up at some length in the first part of this discussion; and perhaps to account for the exigencies of the program that limit the student's choice. He would also probably find it advisable to point out that some studies in the program required either certain other studies or a certain maturity of intellect only reached toward the end of the student's high-school career. He would almost certainly need to warn the student against attempting to take too many subjects at once. Finally, let us hope the principal would succeed in enlisting the student's sympathies on the side of order and harmony and in stirring up in him a lofty *esprit de corps*.

Considering the natural prestige of the high-school principal, and the impressionability of the adolescent if courteously treated, there will be very little difficulty in getting the student freely and willingly to choose the course considered best for him. Indeed, the difficulty lies rather in getting the student to exert any initiative at all. As Superintendent Seaver says in his Report to the Boston School Committee in 1901:

It will not be easy to lead young people out of their earlier habit of unthinking acceptance of all school work required of them into the later habit of rational inquiry as to the suitability of that work to their personal needs. But it is just this change of habit which ought to take place during the high-school period, and the system of elective studies is perhaps the best means for promoting this change. It is even to be feared lest this desirable change of habit be delayed by the very abundance and urgency of the advice given to the young choosers; for there is such a thing as giving young people too much advice—tempting them to rely too much upon it, and too little upon their own judgment and initiative, in choosing their courses of action.

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